

Work Order ID 139514

Monday, November 30, 2015 11:45:12 AM

139514

19 FEB

Page 1

Item ID: D412-711-021

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 11/30/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MCS Date: DEC 02 2015 Tooling: _____ Date: _____Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D412-711	K

MCS 1602-10

100	Document Control	0.00	DAS 6 9-89						
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefiles and create labels per PPP D412-711-021 CHG002								

DAS
28
9-89
MAR 07 2016

120	Pick Kit	0.00							
120	Purchasing								
Packaging	Memo	0.00							
Packaging									

FEB 10 2016

DAS
6
9-89

130	QC4- 100% Inspect kits for completeness	0.00							
130									
QC	Memo	0.00							
Quality Control									

DAS
28
9-89

MAR 07 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

Work Order ID 139514***139514***

Page 2

Monday, November 30, 2015 11:45:12 AM

Item ID: D412-711-021

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 11/30/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150		0.00							
150									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-711-021								
	Location: _____								
	PPP rev: _____								
160	QC21- Final Inspection - Work Order Release	0.00							
160									
QC	Memo	0.00							
Quality Control									

DAS
28
9-00
MAR 07 2016

MCS MAR 07 2016

MCS MAR 07 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

Page 2

Monday, November 30, 2015 11:45:11 AM

Work Order ID: 139514

139514

Parent Item: D412-711-021

D412-711-021

Parent Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015

Required Date: 11/30/2015

Start Qty: 1.00

Required Qty: 1.00

D4165-3 Manufactured No 120 Each 2.0000 1 1

D4165-3

Inner Door Panel

DAS
28
9-89

Location

Loc Qty

Loc Code

st238

2

137298

2

D4165-5 Manufactured No 120 Each 3.0000 1 1

D4165-5

Aft Rib

DAS
28
9-89

Location

Loc Qty

Loc Code

ST234

3

136737

3

D4165-7 Manufactured No 120 Each 15.0000 1 1

D4165-7

Fwd Rib

DAS
28
9-89

Location

Loc Qty

Loc Code

ST246

15

114255

4

116604

11

D4165-9 Manufactured No 120 Each 7.0000 1 1

D4165-9

Angle

DAS
28
9-89

Location

Loc Qty

Loc Code

ST237

7

119607

7

DAS
6
9-89

DAS
6
9-89

DAS
6
9-89

DAS
6
9-89

FEB 10 2016

Monday, November 30, 2015 11:45:11 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Monday, November 30, 2015 11:45:11 AM

Work Order ID: 139514

139514

Parent Item: D412-711-021

D412-711-021

Parent Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015

Required Date: 11/30/2015

Start Qty: 1.00

Required Qty: 1.00

D4165-11 Manufactured No

120

Each

2.0000

1

1

D4165-11

Door Cover Panel

DAS
28
9-89

Location

Loc Qty

Loc Code

st238

2

125784

2

120

Each

2.0000

1

1

**

DAS
6
9-89

D4207-1 Manufactured No

D4207-1

Window Retainer

DAS
28
9-89

Location

Loc Qty

Loc Code

ST237

2

137243

2

120

Each

3.0000

1

1

**

DAS
6
9-89

D4207-3 Manufactured No

D4207-3

Instrument Window

DAS
28
9-89

Location

Loc Qty

Loc Code

ST237

3

116607

1

137327

2

120

Each

3.0000

1

1

**

142232

DAS
6
9-89

D4269-1 Manufactured No

D4269-1

Angle

DAS
28
9-89

Location

Loc Qty

Loc Code

ST089

3

123643

1

137127

2

120

Each

3.0000

1

1

**

DAS
6
9-89

10 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Monday, November 30, 2015 11:45:11 AM

Work Order ID: 139514

139514

Parent Item: D412-711-021

D412-711-021

Parent Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015

Required Date: 11/30/2015

Start Qty: 1.00

Required Qty: 1.00

D4269-3 Manufactured No

120 Each 2.0000 1 1

D4269-3

Angle

DAS
28
9-89

Location

Loc Qty

Loc Code

ST089

2

137270

2

**

DAS
6
9-89

D4269-5 Manufactured No

120 Each 3.0000 1 1

D4269-5

Angle

DAS
28
9-89

Location

Loc Qty

Loc Code

ST237

3

134700

3

**

DAS
6
9-89

D4269-7 Manufactured No

120 Each 6.0000 1 1

D4269-7

Angle

DAS
28
9-89

Location

Loc Qty

Loc Code

ST237

6

132994

6

**

DAS
6
9-89

D4327-1 Manufactured No

120 Each 2.0000 1 1

D4327-1

Angle

DAS
28
9-89

Location

Loc Qty

Loc Code

ST237

2

123687

2

**

DAS
6
9-89

D4327-3 Manufactured No

120 Each 2.0000 1 1

D4327-3

Angle

DAS
28
9-89

Location

Loc Qty

Loc Code

ST237

2

117081

2

**

DAS
6
9-89

FEB 10 2016

Monday, November 30, 2015 11:45:11 AM

Shop Packet Print

Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

Picklist Print

Page 5

Monday, November 30, 2015 11:45:11 AM

Work Order ID: 139514

139514

Parent Item: D412-711-021

D412-711-021

Parent Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015

Required Date: 11/30/2015

Start Qty: 1.00

Required Qty: 1.00

D4385-1

Manufactured No

120

Each

9.0000

2

2

D4385-1

Placard

**

DAS
6
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST095

9

136305

9

AN3-3A

Purchased

No

120

Each

205.0000

22

22

AN3-3A

Bolt

**

DAS
6
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST350

205

m131624

109

m133483

96

AN3-4A

Purchased

No

120

Each

193.0000

20

20

AN3-4A

Bolt

**

DAS
6
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST338a

100

m133694

100

ST350

93

m129682

13

m133234

80

AN3-6A

Purchased

No

120

Each

160.0000

26

26

AN3-6A

Bolt

**

DAS
6
27
9-89
FEB 10 2016

DAS
28
9-89

Location

Loc Qty

Loc Code

ST338a

160

M131305

60

M133561

100

Monday, November 30, 2015 11:45:11 AM

Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

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Monday, November 30, 2015 11:45:11 AM

Work Order ID: 139514

139514

Parent Item: D412-711-021

D412-711-021

Parent Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015

Required Date: 11/30/2015

Start Qty: 1.00

Required Qty: 1.00

AN3-12A Purchased No

120 Each 112.0000 1 1

AN3-12A

Bolt

**

DAS
6 27
9-89 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA 8
m129682 8
ST349 104
m133064 16
m133234 88

120 Each 2,266.000 92 92

**

134055

DAS
6 27
9-89 9-89

NAS1149F0332P

Purchased No

NAS1149F0332P

Washer

Location

Loc Qty

Loc Code

GA 27
122063 27
ST260a 130
m131026 80
m131697 50
ST262 2000
m133709 2000
st268 109
m130388 86
m133077 23

120 Each 81.0000 34 34

**

DAS
6 27
9-89 9-89

DAS
28
9-89

CR3242-4-2

Purchased No

CR3242-4-2

RIVET

Location

Loc Qty

Loc Code

ST317 81
m133077 81

120 Each 81.0000 34 34

**

FEB 10 2016

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
				OTHER :							

Picklist Print

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Monday, November 30, 2015 11:45:11 AM

Work Order ID: 139514

139514

Parent Item: D412-711-021

D412-711-021

Parent Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015

Required Date: 11/30/2015

Start Qty: 1.00

Required Qty: 1.00

MS20426AD3-3

Purchased

No

120

Each

4,644.000

135

135

MS20426AD3-3

RIVET

**

DAS
6
9-89
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

1862

M131624

1862

ST312

2782

M131624

2782

135

MS20426AD4-3

Purchased

No

120

Each

2,696.000

140

140

MS20426AD4-3

Rivet

**

DAS
6
9-89
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

1176

113064

176

m125807

1000

ST312

1520

m125807

1520

140

MS20470AD3-3

Purchased

No

120

Each

6,479.000

25

25

MS20470AD3-3

RIVET, UNIVERSAL HEAD

**

FEB 10 2016
DAS
6
9-89
27

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

909

1065

909

ST310

5570

16941

5570

25

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Picklist Print

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Monday, November 30, 2015 11:45:11 AM

Work Order ID: 139514

139514

Parent Item: D412-711-021

D412-711-021

Parent Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015

Required Date: 11/30/2015

Start Qty: 1.00

Required Qty: 1.00

MS20470AD4-3

Purchased

No

120

Each

1,412.000

90

90

MS20470AD4-3

Rivet - Universal Head

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

845

2193

845

ST310

567

2193

567

MS21042L3

Purchased

No

120

Each

350.0000

24

24

MS21042L3

Nut

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

95

M130922

95

GA

84

M131317

84

ST304

171

M130922

171

DAS
27
9-89

DAS
27
9-89

DAS
6
9-89

FEB 10 2016

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Skid-tube ☐</td> <td style="width: 15%;">Cross tube ☐</td> <td style="width: 15%;">Water Jet ☐</td> <td style="width: 15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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				Completed By																					
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OTHER :																									

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Work Order ID: 139514

139514

Parent Item: D412-711-021

D412-711-021

Parent Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015

Required Date: 11/30/2015

Start Qty: 1.00

Required Qty: 1.00

MS21059L3

Purchased

No

120

Each

161.0000

4

4

MS21059L3

Nut Plate

DAS 27
6 9-89

DAS 28
9-89

Location

Loc Qty

Loc Code

CA

16

M129682

16

cck007a

100

M133363

100

GA

1

113749

1

ST301

13

M133031

13

ST303

31

M131616

5

M133016

26

MS21069L3

Purchased

No

120

Each

48.0000

34

34

MS21069L3

ANCHOR NUT

DAS 27
6 9-89

DAS 28
9-89

Location

Loc Qty

Loc Code

ST299

30

m133010

5

m133127

25

ST301

18

m131618

18

MS21069L08

Purchased

No

120

Each

614.0000

8

8

MS21069L08

ANCHOR NUT

DAS 27
6 9-89

DAS 28
9-89

Location

Loc Qty

Loc Code

ST299

614

123522

614

FEB 10 2016

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 16.6%;">Skid-tube ☐</td> <td style="width: 16.6%;">Cross tube ☐</td> <td style="width: 16.6%;">Water Jet ☐</td> <td style="width: 16.6%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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Picklist Print

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Monday, November 30, 2015 11:45:12 AM

Work Order ID: 139514

139514

Parent Item: D412-711-021

D412-711-021

Parent Item Name: Vertical Reference Door Modification LH

Start Date: 11/16/2015

Required Date: 11/30/2015

Start Qty: 1.00

Required Qty: 1.00

MS21071L3

Purchased

No

120

Each

233.0000

3

3

MS21071L3

ANCHOR NUT

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST299

132

124291

28

m129702

104

ST301

101

114348

1

125654

100

MS21071L08

Purchased

No

120

Each

162.0000

1

1

MS21071L08

ANCHOR NUT

DAS
27
9-89

Location

Loc Qty

Loc Code

ST299

162

102587

62

103447

100

DAS
28
9-89

FEB 10 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
				OTHER : _____							

QTY -011	QTY -013	QTY -015	QTY -017	QTY -019	QTY -021	QTY -041	PART NUMBER	DESCRIPTION
					22	22	AN3-3A	BOLT
					20	20	AN3-4A	BOLT
					26	26	AN3-6A	BOLT
					1	1	AN3-12A	BOLT
					92	92	NAS1149F0332P	WASHER (OR AN960-10L)
					34	34	CR3242-4-2	RIVET
					135	135	MS20426AD3-3	RIVET
					140	140	MS20426AD4-3	RIVET
					25	25	MS20470AD3-3	RIVET
					90	90	MS20470AD4-3	RIVET
					24	24	MS21042L3	NUT
					4	4	MS21059L3	NUT PLATE
					34	34	MS21069L3	NUT PLATE
					8	8	MS21069L08	NUT PLATE
					3	3	MS21071L3	NUT PLATE
					1	1	MS21071L08	NUT PLATE
						1	204-030-853-125	LH COPILOT DOOR (204-030-853-137/-155)
1							D412-711-111	WIRING HARNESS, 212/412
B ₁							B ^B D4268-043	INSTRUMENT PANEL, 212/412 (REPLACES EA20469-15-412)
	1						D205-711-113	WIRING HARNESS, 205
	B ₁						B ^B D4268-041	INSTRUMENT PANEL, 205 (REPLACES EA20469-15-205)
		1					D204-711-115	WIRING HARNESS, 204
		B ₁					B ^B EA20469-15-204	INSTRUMENT PANEL, 204
			1				D214-711-117	WIRING HARNESS, 214
			B ₁				B ^B EA20469-15-214	INSTRUMENT PANEL, 214
				1			D212-711-119	WIRING HARNESS, EAGLE SINGLE
				B ₁			B ^B D4268-047	INSTRUMENT PANEL, EAGLE SINGLE

(A) IF CUSTOMER PREFERS TO SUPPLY AND MODIFY THEIR OWN DOOR, D412-711-021 SHOULD BE SUPPLIED IN LIEU OF D412-711-041.
(B) INSTRUMENT PANEL INCLUDED WITH HARNESS ABOVE

NOTES

1) WIRING HARNESSES:

For Bell 204/205/210/214 Wiring Harnesses, use drawing D2046904.
For Bell 212 Wiring Harnesses, use drawing D2046903*.
For Bell 412 Wiring Harnesses, use drawing D412-711-901.
For Bell 212 modified per SH07-28/SR02831NY use D212-761-224
or D212-761-225 depending on aircraft s/n.
* Despite the note on the drawing, D2046903 is applicable to all 212 aircraft
serial numbers

Wiring Harnesses will vary
depending on aircraft s/n.

2) D412-711-101 REPLACEMENT WINDOW:

To increase downward viewing clarity, it is acceptable to cut a small section from the replacement window on its downward side per Figure 1 of this document. The cutout can be a maximum of 9.00" wide x 17.00" long (229mm x 432mm), measured along the profile of the replacement window. The corners of the cutout must have a minimum radius of 2" (50mm). The cutout should be located at least 1.0" (25mm) from the flange. The actual shape of the cutout can vary as desired, as long as the overall dimensions are within the specified limits. See Figure 1 for reference.

3) D412-711-043 SNAP VENT KIT:

It is acceptable to install a total of up to 2X D3932-1 Snap Vents (available from Dart) onto the D412-711-101 Replacement Window to provide ventilation into the cabin. Refer to Figure 1 for acceptable locations and size of cutouts.

4) It is acceptable to use MS21042L3 nuts to install the window in lieu of anchor nuts shown on D2046901.

APPROVED

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	DC	DRAWING NO.	REV. K
MFG. APPR.	JLM	D412-711	SHEET 3 OF 6
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	VERTICAL REFERENCE DOOR NTS	
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REFERENCE ONLY

DAS
28
2-00

QTY -011	QTY -013	QTY -015	QTY -017	QTY -019	QTY -021	QTY -041	QTY -043	PART NUMBER	DESCRIPTION
X								D412-711-011	VERTICAL REFERENCE DOOR INSTALLATION, 212/412
	X							D205-711-013	VERTICAL REFERENCE DOOR INSTALLATION, 205/210
		X						D204-711-015	VERTICAL REFERENCE DOOR INSTALLATION, 204
			X					D214-711-017	VERTICAL REFERENCE DOOR INSTALLATION, 214
				X				D212-711-019	VERTICAL REFERENCE DOOR EAGLE SINGLE
					X			D412-711-021	VERTICAL REFERENCE DOOR KIT
A1	A1	A1	A1	A1		X		D412-711-041	VERTICAL REFERENCE DOOR ASSEMBLY
							X	D412-711-043	SNAP VENT KIT
					1	1		D412-761-043	MODIFIED LATCH MECHANISM KIT, LH (REPLACES EA20469-23/-24/-25)
					1	1		D412-711-101	REPLACEMENT WINDOW (REPLACES EAGLE P/N EB212-100L / EA20469-3)
					1	1		D3802-1-120	RUBBER STRIP
							2	D3932-1	SNAP VENT
					1	1		D4165-1	DOUBLER
					1	1		D4165-3	DOOR INNER SKIN (REPLACES EA20469-18)
					1	1		* D4165-5	AFT RIB (REPLACES EA20469-34)
					1	1		** D4165-7	FWD RIB (REPLACES EA20469-31)
					1	1		D4165-9	ANGLE (REPLACES EA20469-17)
					1	1		D4165-11	DOOR COVER PANEL (REPLACES EA20469-21)
					1	1		D4207-1	WINDOW RETAINER (REPLACES EA20469 -14)
					1	1		D4207-3	WINDOW (REPLACES EA20469-13)
					1	1		* D4269-1	ANGLE (REPLACES EA20469-33)
					1	1		** D4269-3	ANGLE (REPLACES EA20469-30)
					1	1		** D4269-5	ANGLE (REPLACES EA20469-29)
					1	1		* D4269-7	ANGLE (REPLACES EA20469-32)
					1	1		D4324-011	ARM REST ASSEMBLY (REPLACES EA20469-16)
					1	1		D4327-1	ANGLE (REPLACES EA20469-11)
					1	1		D4327-3	ANGLE (REPLACES EA20469-07)
					2	2		D4385-1	PLACARD

* PART OF EA20469-10 REAR RIB ASSEMBLY
 ** PART OF EA20469-12 FWD RIB ASSEMBLY

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DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	DC	DRAWING NO.	REV. K
MFG. APPR.	JLM	D412-711	SHEET 2 OF 6
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	VERTICAL REFERENCE DOOR	NTS
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